



Contents

Welcome to WWW9!	v
Message from the Program Committee Chair	vii
Credits	ix
Performance	
<i>N. Bhatti, A. Bouch and A. Kuchinsky</i> Integrating user-perceived quality into Web server design	1
<i>B. Krishnamurthy and C.E. Wills</i> Analyzing factors that influence end-to-end Web performance	17
<i>P. Rodriguez and S. Sibal</i> SPREAD: scalable platform for reliable and efficient automated distribution	33
Security	
<i>D.P. Kormann and A.D. Rubin</i> Risks of the Passport single signon protocol	51
<i>E. Damiani, S. De Capitani di Vimercati, S. Paraboschi and P. Samarati</i> Design and implementation of an access control processor for XML documents	59
<i>B. Hashij, S. Malabarba, R. Pandey and M. Bishop</i> Supporting reconfigurable security policies for mobile programs	77
Rich queries	
<i>E. Spertus and L.A. Stein</i> Squeal: a structured query language for the Web	95
<i>T.A. Phelps and R. Wilensky</i> Robust intra-document locations	105
<i>D. Florescu, D. Kossmann and I. Manolescu</i> Integrating keyword search into XML query processing	119

XML session-1*S. Ceri, P. Fraternali and A. Bongio*

Web Modeling Language (WebML): a modeling language for designing Web sites 137

G.J. Badros

JavaML: a markup language for Java source code 159

P. van Amstel, P. van der Eijk, E. Haasdijk and D. Kuilman

An interchange format for cross-media personalized publishing 179

Mobile access*M. Hori, G. Kondoh, K. Ono, S.-i. Hirose and S. Singhal*

Annotation-based Web content transcoding 197

O. Buyukkoken, H. Garcia-Molina and A. Paepcke

Focused Web searching with PDAs 213

E. Kaasinen, M. Aaltonen, J. Kolari, S. Melakoski and T. Laakko

Two approaches to bringing Internet services to WAP devices 231

Storage infrastructure*R. Stata, K. Bharat and F. Maghoul*

The Term Vector Database: fast access to indexing terms for Web pages 247

B.E. Brewington and G. Cybenko

How dynamic is the Web? 257

J. Hirai, S. Raghavan, H. Garcia-Molina and A. Paepcke

WebBase: a repository of Web pages 277

Web characterization*M.R. Henzinger, A. Heydon, M. Mitzenmacher and M. Najork*

On near-uniform URL sampling 295

A. Broder, R. Kumar, F. Maghoul, P. Raghavan, S. Rajagopalan, R. Stata, A. Tomkins and J. Wiener

Graph structure in the Web 309

A. Feldmann

BLT: Bi-layer Tracing of HTTP and TCP/IP 321

Practice and experience*C. Hölscher and G. Strube*

Web search behavior of Internet experts and newbies 337

K. Forsberg and L. Dannstedt

Extensible use of RDF in a business context 347

S.L. Fowler, A.-M.J. Novack and M.J. Stillings

The evolution of a manufacturing Web site 365

Hypermedia and link analysis*R.R. Sarukkai*

- Link prediction and path analysis using Markov chains 377

R. Lempel and S. Moran

- The stochastic approach for link-structure analysis (SALSA) and the TKC effect 387

H. Weinreich and W. Lamersdorf

- Concepts for improved visualization of Web link attributes 403

Search and ranking*A. Sugiura and O. Etzioni*

- Query routing for Web search engines: architecture and experiments 417

L. Huang, M. Hemmje and E.J. Neuhold

- ADMIRE: an adaptive data model for meta search engines 431

D. Zhang and Y. Dong

- An efficient algorithm to rank Web resources 449

S. Mukherjee

- WTMS: a system for collecting and analyzing topic-specific Web information 457

Tools

*S. Staab, J. Angele, S. Decker, M. Erdmann, A. Hotho, A. Maedche, H.-P. Schnurr,
R. Studer and Y. Sure*

- Semantic community Web portals 473

K. Bharat

- SearchPad: explicit capture of search context to support Web search 493

V. Anupam, J. Freire, B. Kumar and D. Lieuwen

- Automating Web navigation with the WebVCR 503

J.C. Shafer and R. Agrawal

- Continuous querying in database-centric Web applications 519

Hypermedia*S. Rollins and N. Sundaresan*

- AVoN calling: AXL for voice-enabled Web navigation 533

K. Grønbaek, L. Sloth and N.O. Bouvin

- Open hypermedia as user controlled meta data for the Web 553

P. Pan and G. Davenport

- I-Views: a community-oriented system for sharing streaming video on the Internet 567

S. Goose, M. Newman, C. Schmidt and L. Hue

- Enhancing Web accessibility via the Vox Portal and a Web-hosted dynamic
HTML↔VoxML converter 583

Architecture*M. Spreitzer and B. Janssen*

HTTP 'Next Generation' 593

V. Krishnan and S.G. Chang

Customized Internet radio 609

A.C. Huang, B.C. Ling, J.J. Barton and A. Fox

Running the Web backwards: appliance data services 619

Caching*K.-L. Wu and P.S. Yu*

Latency-sensitive hashing for collaborative Web caching 633

J. Jung, D. Lee and K. Chon

Proactive Web caching with cumulative prefetching for large multimedia data 645

S. Gruber, J. Rexford and A. Basso

Protocol considerations for a prefix-caching proxy for multimedia streams 657

Data mining*S. Chakrabarti, S. Srivastava, M. Subramanyam and M. Tiwari*

Using Memex to archive and mine community Web browsing experience 669

W.W. Cohen and W. Fan

Web-collaborative filtering: recommending music by crawling the Web 685

N. Sundaresan and J. Yi

Mining the Web for relations 699

XML session-2*A. Cawsey*

Presenting tailored resource descriptions: will XSLT do the job? 713

M. Fernández, W.-C. Tan and D. Suci

SilkRoute: trading between relations and XML 723

M. Girardot and N. Sundaresan

Millau: an encoding format for efficient representation and exchange of XML over the Web 747

E-commerce*J.A. Tomlin*

An entropy approach to unintrusive targeted advertising on the Web 767

N. Abe and T. Kamba

A Web marketing system with automatic pricing 775

J. Brustoloni and J. Garay

MicroISPs: providing convenient and low-cost high-bandwidth Internet access 789

Content and control

K. Martinez, S. Perry and J. Cupitt

Object browsing using the Internet Imaging Protocol 803

T. Nakayama, H. Kato and Y. Yamane

Discovering the gap between Web site designers' expectations and users' behavior 811

D. Rafiei and A.O. Mendelzon

What is this page known for? Computing Web page reputations 823

Author Index 837

Subject Index 841